

Amendment

a control unit;

a temperature sensor; and

a heater comprising a heating wire wound on a fluid supply tube connected to a fluid passage in a temperature control plate to supply a fluid to the temperature control plate;

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said first temperature control device being configured to control a temperature of at least one of the slot electrode and component parts including the wavelength reducing member provided in the vicinity of the slot electrode within a predetermined range of temperatures by heating at least one of the slot electrode and component parts including the wavelength reducing member above a lower temperature limit and cooling at least one of the slot electrode and component parts including the wavelength reducing member below a higher temperature limit.

See the attached Appendix for the changes made to effect the above claim(s).

Amendment

Please add the following new claim:

-- 26. (New) A microwave plasma processing apparatus comprising:

a wavelength reducing member constructed and arranged to reduce a wavelength of a microwave transmitted therethrough;

a slot electrode guiding the microwave exiting the wavelength reducing member, the slot electrode provided adjacent to the wavelength reducing member;

a process chamber into which the microwave exiting the slot electrode is introduced so that a plasma is generated by the microwave within the process chamber;

a first temperature control device comprising a fluid supply tube connected to a fluid passage in a temperature control plate and a heating wire wound on the fluid supply tube,

wherein said first temperature control device is configured to heat at least one of the slot electrode and component parts including the wavelength reducing member above a lower temperature limit and to cool at least one of the slot electrode and component parts including the wavelength reducing member below a higher temperature limit. --